ENGINE

John Deere engineered and manufactured sixcylinder diesel engine. Replaceable wet-type cylinder liners ensure superior heat dissipation, longer engine life. High-strength alloy heads include replaceable valve seat inserts. John Deere engines are designed and manufactured with time-proven industry standard features that provide reliable service and long life.

TRANSMISSION

Direct drive, planetary power shift transmission with modulated shift on-the-go speed selections in all eight forward and four reverse gears. There are five working speeds below 9 mph (15 km/h). Standard equipment also includes an inching pedal and tow disconnect.

TRAVEL SPEEDS

(At 2300 engine rpm with 13.00-24 tires and no tire slip)

	Forward		Reverse	
Shift Lever Position	mph	(km/h)	mph	(km/h)
1	2.2	3.5	2.9	4.7
2	3.2	5.1	4.1	6.6
3	4.9	7.9	6.3	10.1
4	6.4	10.3	8.2	13.2
5	8.4	13.5		
6	10.9	17.5		
7	14.2	22.9		
8	24.4	39.3		

FINAL DRIVE

Inboard-mounted planetary final drives are sealed in cool, filtered oil. The operator-controlled differential lock/unlock system allows the differential to easily be locked for maximum traction or unlocked for maneuverability in tight turns. Two-inch (51 mm) pitch tandem drive chains are sized for long life.

BRAKES

Foot-operated hydraulic wet-disk power brakes are sealed in cool, filtered oil. They're self-adjusting and maintenance free. Standard equipment also includes a hand-operated, mechanical dry-disk parking brake. Both independent braking systems are effective on all four tandem wheels.

FRONT AXLE

Heavy-duty, welded box construction	
Front axle oscillation (total)32	degrees
Wheel lean (each direction)20	degrees

STEERING

A John Deere innovation – all hydraulic power frame articulation provides maximum maneuverability and productivity. Crab steering reduces side drift, positions the tandems on firm ground and increases sideslope stability.

Frame articulation (both	right	and	loft)	25	dograce
Traine articulation (both	Hight	anu	ieitj	20	uegrees
Minimarina truncina a na dire	_			22.6	(67)
Minimum turning radius					. 16./ mi

HYDRAULICS

The closed-center hydraulic system uses a pressure-controlled variable-displacement single hydraulic pump. Integral hydraulic control valve lockouts eliminate cylinder drift. O-ring face seal and fittings eliminate hydraulic leaks.

Hydraulic pump	4.0 cu.	in. (65 cm ³)
Rated flow at 2300 engine rpm	37.6 gpm	(142 L/min.)

TIRES AND RIMS						
Tire	Wheel	Tread	Overal	Ground Clearance		
Size	Front	Rear	Front	Rear	(Front Axle)	
13.00-24 9 in. rim (229 mm)	76.60 in. (1.94 m)	79.60 in. (2.02 m)	7 ft. 10 in. (2.39 m)	7 ft. 10 in. (2.39 m)	22 in. (559 mm)	
14.00-24 10 in. rim (254 mm)	76.60 in. (1.94 m)	79.60 in. (2.02 m)	8 ft. (2.44 m)	8 ft. (2.44m)	22.5 in. (572 mm)	
17.5-25 14 in. rim (356 mm)	79.40 in. (2.02 m)		8 ft. 6 in. (2.59 m)	8 ft. 6 in. (2.59 m)	23.2 in. (589 mm)	

CAPACITIES

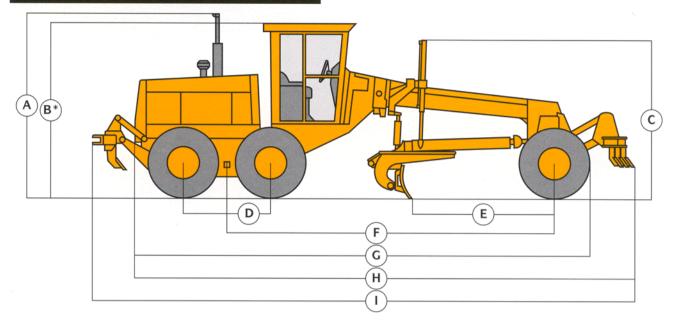
	U.S.
Fuel tank	70 gal. (265 L)
Cooling system	
Engine lubrication, including filter	
Transmission and hydraulic system (refill)	
Tandem housings (each)	
Circle gearbox	3 qt. (2.8 L)

OPERATING WEIGHTS

SAE	On Front Wheels	On Rear Wheels	Total
With standard equipment	.8.620 lb.	20,410 lb.	29,030 lb.
	(3 909 kg)		(13 166 kg)
With standard equipment			
and scarifier	.10,610 lb.	20,150 lb.	30,760 lb.
	(4 812 kg)		(13 950 kg)
With standard equipment,			
scarifier and ripper	.9,870 lb.	23,440 lb.	33,310 lb.
	(4 476 kg)	(10 630 kg)	(15 107 kg)
Typically equipped operating			

Typically equipped operating weights range up to 35,020 lb. (15 882 kg)

DIMENSIONS



Key:	
A Height to top of exhaust	in. (3.12 ı
B Height to top of cab	in. (3.06 ı
C Height to top of blade lift cylinders	' in. (2.92 ı
D Tandem axle spacing	' in. (1.54 ı
E Bladebase8 ft. 9	in. (2.67 i
F Wheelbase	' in. (5.97 ı
G Overall length	
H Overall length with scarifier	' in. (9.02 i
I Overall length with scarifier and ripper31 ft. 1	in. (9.73 ı
*Add 8.3 in. (210 mm) for full height cab	•

*Add 8.3 in. (210 mm) for full height cab Add 1.0 in. (25.5 mm) for cab with air conditioning Add 0 in. (0 mm) for low profile canopy with ROPS

BLADE FUNCTION

All hydraulic, industry-preferred hand lever placement of blade function controls (standard equipment). Blade lift controls include a float position. Conversion from two-hand to one-hand control is easily accomplished. Seven blade lift arm positions provide excellent blade positioning capabilities. Blade components are fully adjustable.

BLADE RANGE

Lift above ground	17.5 in. (444 mm)
Blade side shift, right or left	
Shoulder reach outside wheels (frame straig	
Right	
Left	
Pitch at ground line	
	5 deg. back

MAINFRAME

Welded box construction	
Width, minimum	12.07 in. (306.5 mm)
Height, minimum	10.63 in. (270 mm)
Thickness, sides	0.63 in. (16 mm)
top and bottom	1.00 in. (25 mm)
Weight per ft., minimum	
Minimum vertical section modulus	117 in.3 (1917 cm3)
Average vertical section modulus at sad	dle149 in.3 (2448 cm3)

DRAWBAR

Welded box construction machined for flatness with double ball and socket pivot connection and replaceable wear inserts.

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CIRCLE

Welded construction, heat-treated	
flatness with replaceable wear inse	rts.
Circle diameter	60 in. (1.52 m)
Rotation	360 degrees
Drivehy	ydraulic motor and worm gear
•	with positive position lock
Sideshift, right	

MOLDBOARD

High strength, wear resistant high carbon steel with replaceable side shift wear inserts.
Length
Height24 in. (610 mm)
Thickness

CUTTING EDGE

Dura-Max® through-hardened steel edge.		
Thickness and width0.62 x 6.0 in.	(16 x 152 m	m)

V-type manual three-pitch position with hyd	
Width of cut	4 ft. (1.22 m)
Number of teeth	5 standard, 9 optional
Lift above ground	21.8 in. (554 mm)
Maximum penetration	13.3 in. (338 mm)
Shank size	x 3 in. (25 x 76 mm)

Parallelogram linkage with manual valve	e control.
Width of cut	8 ft. (2.44 m)
Number of shanks	3 standard, 5 optional
Lift above ground	14.5 in. (368 mm)
Maximum penetration	14 in. (356 mm)
Shank size	2 x 5 in. (51 x 127 mm)

Parallelogram linkage with manual va	alve control and hydraulic float.
Ripper:	,
Width of cut	8 ft. (2.44 m)
Number of shanks	3 standard, 5 optional
Lift above ground	
Maximum penetration	14 in. (356 mm)
Shank size	2 x 5 in. (51 x 127 mm)
Scarifier:	
Width of cut	6 ft. 10 in. (2.08 m)
Number of teeth	9
Lift above ground	
Maximum penetration	
Shank size	.1.25 x 4.0 in. (32 x 102 mm)
	(,

Engine/Power Train: Air precleaner

Controls

Antifreeze Electric fuel shutoff Fan guard Fuel filter Radiator trash screen Transmission tow disconnect 13.00-24, 8 PR, G2 tires **Electrical System:** 40 amp (1120 watt) alternator Batteries with 180 min. (625 CCA) reserve capacity Horn Lights Driving (2) Flashing and turn signals (4) Stop and tail (2) Reverse warning alarm **Hydraulics:**

Blade pitch Blade sideshift Circle rotate Circle side shift Frame articulate Wheel lean Hydraulic differential lock Hydraulic oil cooler Hydraulic pump, 4.0 cu. in. (65 cu. cm), 37.6 gpm (142 Lpm) Power brakes Power steering **Operator's Station:** Adjustable front console Cushioned vinyl seat Front windshield wiper Instrument lights Interior light

Blade lift with float

Interior rearview Outside rearview (2) Seat belt Switch-operated differential lock control Tilt steering Tinted glass **Instruments and Indicators:** Dual level monitor system Alternator voltage warning light Brake pressure warning light with

audible alarm Engine air cleaner restriction warning light Engine coolant temperature warning light with audible alarm Engine oil pressure warning light with audible alarm Hydraulic oil filter restriction warning light

Park brake engaged (in gear)

warning light with audible alarm Saddle locking pin disengaged warning light Transmission oil filter restriction warning light Transmission oil pressure warning light Transmission oil temperature warning light with audible alarm Indicator lights

Differential lock engaged Turn signal and hazard warning Gauges

Articulation indicator Fuel Hourmeter

Moldboard:

12 ft. x 24 in. (3.66 m x 610 mm) moldboard with .62 x 6 in. (16 x 152 mm) through hardened Dura-Max cutting edge

Low profile cab with ROPS

(Add these weights to SAE standard equipment operating weight to obtain total operating weight.)

Mirrors

	lb.	kg		lb.	kg
Engine/Power Train:			13 ft. x 24 in. (3.96 m x 610 mm) moldboard with .62		
Cold weather ether starting aid	3	1	x 6 in. (16 x 152 mm) through hardened Dura-Max		
Coolant heater	2	1	cutting edge	60	27
Operator's Station:			13 ft. x 24 in. (3.66 m x 610 mm) moldboard with .75		
Air conditioner with pressurizer and heavy-duty			x 8 in. (19 x 203 mm) through hardened Dura-Max		
alternator	177	80	cutting edge	196	89
Cab, full height with ROPS	82	37	14 ft. x 24 in. (4.27 m x 610 mm) moldboard with .62		
Canopy, low profile with ROPS	-226	-103	x 6 in. (16 x 152 mm) through hardened Dura-Max		
Control conversion (moves LH blade control to RH			cutting edge	119	54
side)	2	1	14 ft. x 24 in. (4.27 m x 610 mm) moldboard with .75		
Defroster fan	4	2	x 8 in. (19 x 203 mm) through hardened Dura-Max		
Defroster fans (dual)	8	4	cutting edge	265	120
Floormat	9	4	Extensions, 2 ft. (610 mm) right or left (less cutting		
Heater - 20,000 Btu/hr (5.9 kW)	16	7	edge)	220	100
Heater - 40,000 Btu/hr (11.7 kW)	31	14	Overlay end bits (1 pair)		
Heater – 25,000 Btu/hr (7.3 kW), roof mounted for			6 in. (152 mm)	62	28
use with air conditioner	17	8	8 in. (203 mm)	77	35
Pressurizer, cab fresh air	43	20	Attachments:	, -	-
Seat belt, 3 in. (76 mm)	3	1	Bottom guard, general purpose	170	77
Seat, deluxe suspension vinyl with armrests	90	41	Bottom guard, heavy duty with rear hitch	610	277
Seat, deluxe suspension cloth with armrests	90	41	Engine side shields	60	27
Windshield washers, front and rear	15	7	Front-mounted dozer blade - 106 x 31.6 in. (2.69 m		
Wipers/washers, lower front windows	7	3	x 803 mm)	1490	676
Wiper, rear window	5	2	5.3 in. (135 mm) dig below ground		
Electrical System:			28.9 in. (734 mm) lift above ground		
Alternator, 50 amp (1400 watt)	17	8	Front-mounted scarifier with 5 teeth	1730	785
Beacon wiring and switch	2	1	Front pushblock	1750	793
Blade lights (2 mounted under cab)	4	2	Front weight	550	250
Work lights (2 front, 2 rear)	12	5	Rear hitch	61	28
24 volt to 12 volt converter	3	ĺ	Rear-mounted ripper with hitch and 3 shanks	2470	1120
Hydraulics:			Rear-mounted ripper/scarifier with hitch, 3 ripper	2110	1120
Auxiliary function valve for front-mounted equipment	3	1	shanks and 9 scarifier teeth	3284	1489
Auxiliary function valve for rear-mounted equipment	50	23	Toolbox	11	5
Hydraulic pump, 6.0 cu. in. (98 cu. cm) 52.4 gpm			Tires:		
(198 Lpm)	50	23	13.00-24, 12 PR, G2 tires on 9 in, rims	126	57
Hydraulics for front-mounted equipment	19	9	14.00-24, 12 PR, G2 tires on 9 in. rims	210	95
Moldboards:			14.00-24, 12 PR, G2 tires on 10 in. 3-piece rims	577	262
12 ft. x 24 in. (3.66 m x 610 mm) moldboard with .75			14.00-24 radial tires on 10 in. 3-piece rims	799	362
x 8 in. (19 x 203 mm) through hardened Dura-Max			17.5-25, 12 PR, L2 tires on 14 in. 3-piece rims	1049	476
cutting edge	126	57	Other tire sizes available	1043	470
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